

**Notice of Allowability**

Application No.

10/712,710

Examiner

Ji H. Bae

Applicant(s)

MAHMOUD, FADI A.

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendments filed on 1-12-2007.
2. ☒ The allowed claim(s) is/are 1-5,7-12,14-17,19 and 20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20070215</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                                    |
|  | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Lie-Yea Cheng (No. 52,732) on 15 February 2007.

The application has been amended as follows:

In the claims:

**Claim 1, amended to read:**

A method to boot up a server using a target storage device selected from a plurality of independent storage devices located in a subsystem over a network, comprising:

interactively installing an operating system by entering a setup mode on the server;

receiving an IP address of the subsystem from the user while in the setup mode;

finding the subsystem at the IP address over the network;

receiving identification of the target storage device where installation is to occur from the user while in the setup mode;

storing the operating system and a dynamic configuration program in the target storage device selected from the plurality of independent storage devices located in the subsystem; and

booting the operating system on the target storage device using the identification and IP address input by the user while in the setup mode, the booting occurring through block data transfer, wherein the server communicates with the target storage device by using iSCSI protocol.

**Claim 2, amended to read:**

A method to boot up a server as recited in claim 1, wherein the installing includes:  
determining a network system configuration after power on;  
receiving instruction to install the operating system; and  
copying the operating system into the target storage device over the network using block data transfer.

**Claim 6, cancelled.**

**Claim 8, amended to read:**

A method to boot up a server as recited in claim 1, wherein accessing the operating system includes:  
accessing data at a first sector of a boot device, the location of the first sector being located in the target storage device designated by the IP address and the identification received during the installation process; and  
retrieving an operating system boot loader at the first sector of the target storage device.

**Claim 9, amended to read:**

A method to interactively install an operating system on a target storage device selected from a plurality of independent storage devices in a subsystem over a network, comprising:  
initiating a setup mode to install the operating system;  
receiving an IP address of the subsystem from the user while in the setup mode;  
determining the plurality of independent storage devices located in the subsystem;

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finding the subsystem at the IP address over the network;

receiving identification of a target storage device selected from the plurality of storage devices located in the subsystem, the identification being received from the user while in the setup mode; and

installing the operating system in the target storage device selected from the plurality of independent storage devices in the subsystem using block data transfer, wherein iSCSI is utilized as a data transfer protocol.

**Claim 13, cancelled.**

**Claim 17, amended to read:**

A method to boot up a server from a target storage device selected from a plurality of independent storage devices located in a subsystem over a network, comprising:

retrieving an operating system boot loader at a first sector of the target storage device selected from the plurality of independent storage devices located in the subsystem over the network; and

booting up the server using the operating system located on the target storage device by using the operating system boot loader, wherein data transfer of the operating system from the target storage device to the server is accomplished by use of an iSCSI protocol, and wherein the operating system is interactively installed on the target storage device by entering a setup mode on the server, receiving an IP address of the subsystem from a user while in the setup mode, finding the subsystem at the IP address over the network, receiving identification of the target storage device where installation is to occur from the user while in the setup mode, and

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storing the operating system and a dynamic configuration program in the target storage device selected from the plurality of independent storage devices located in the subsystem.

**Claim 18, cancelled.**

**Claim 19, amended to read:**

A method to boot up a server as recited in claim 17, wherein retrieving the operating system boot loader includes:

instructing an option ROM BIOS to direct a kernel to obtain the operating system boot loader at the first sector;

copying the operating system boot loader into memory on the server; and

running the operating system boot loader to boot up the server.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji H. Bae whose telephone number is 571-272-7181. The examiner can normally be reached on Monday-Friday, 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**CHUN CAO**  
**PRIMARY EXAMINER**